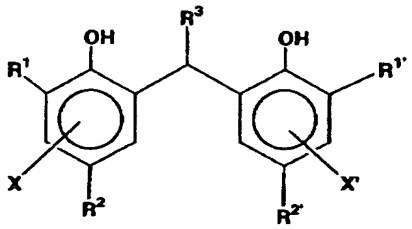
What Is Claimed Is:

1. An image forming method using an image recording apparatus comprising:

a laser irradiating means for laser scanning of a photothermographic material that has a support and includes on at least one surface thereof a photosensitive silver halide, a non-photosensitive organic silver salt, a reducing agent and a binder; and

a conveying means for guiding the photothermographic material in a sub-scanning direction to a thermal development unit,

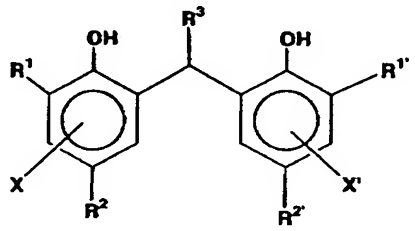
wherein a distance between a scanning line of the laser irradiating means and an inserting portion of the thermal development unit is equal to or smaller than 50 cm, and the reducing agent is at least one selected from the group of compounds represented by the following formula (R1):



Formula (R1)

wherein, in formula (R1), R^1 and $R^{1'}$ each independently represents an alkyl group having 1 to 20 carbon atoms; R^2 and $R^{2'}$ each independently represents a hydrogen atom or a substituent for a benzene ring; R^3 represents a substituent for forming a 3- to 7-membered ring composed of atoms selected from a carbon atom, an oxygen atom, a nitrogen atom, a sulfur atom and a phosphor atom; and

X and X' each independently represents a hydrogen atom or a substituent for a benzene ring; and compounds represented by the following formula (R2):



Formula (R2)

wherein, in formula (R2), R^1 and $R^{1'}$ each independently represents an alkyl group having 1 to 20 carbon atoms; R^2 and $R^{2'}$ each independently represents a hydrogen atom or a substituent for a benzene ring; R^3 represents an alkenyl group or an alkyl group having an unsaturated bond; and X and X' each independently represents a hydrogen atom or a substituent for a benzene ring.

2. The image forming method according to claim 1, wherein the distance between the scanning line of the laser irradiating means and the inserting portion of the thermal development unit is equal to or smaller than 45 cm.

3. The image forming method according to claim 1, wherein the photothermographic material has a silver coating amount of 1.9 g or less per m^2 of the photothermographic material.

4. The image forming method according to claim 2, wherein the

photothermographic material has a silver coating amount of 1.9 g or less per m^2 of the photothermographic material.

5. The image forming method according to claim 1, wherein the thermal development is carried out with a thermal developing time ranging from 6 to 14 seconds.

6. The image forming method according to claim 2, wherein the thermal development is carried out with a thermal developing time ranging from 6 to 14 seconds.

7. The image forming method according to claim 3, wherein the thermal development is carried out with a thermal developing time ranging from 6 to 14 seconds.

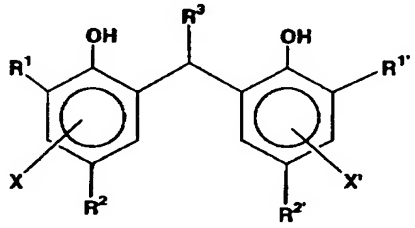
8. The image forming method according to claim 1, wherein the thermal development is carried out at a temperature ranging from 80 to 250°C.

9. The image forming method according to claim 1, wherein the thermal development is carried out at a temperature ranging from 110 to 130°C.

10. The image forming method according to claim 1, wherein the thermal development is carried out using a plate heater.

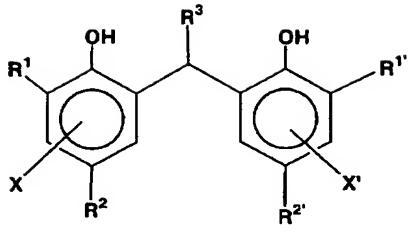
11. An image forming method comprising carrying out thermal development, with an interval time equal to or less than 12 seconds, of a photothermographic material that has a support and includes on at least one surface thereof a photosensitive silver halide, a non-photosensitive organic silver salt, a reducing agent and a binder,

wherein the reducing agent is at least one selected from the group of compounds represented by the following formula (R1):



Formula (R1)

wherein, in formula (R1), R^1 and $R^{1'}$ each independently represents an alkyl group having 1 to 20 carbon atoms; R^2 and $R^{2'}$ each independently represents a hydrogen atom or a substituent for a benzene ring; R^3 represents a substituent for forming a 3- to 7-membered ring composed of atoms selected from a carbon atom, an oxygen atom, a nitrogen atom, a sulfur atom and a phosphor atom; and X and X' each independently represents a hydrogen atom or a substituent for a benzene ring; and compounds represented by the following formula (R2):



Formula (R2)

wherein, in formula (R2), R^1 and $R^{1'}$ each independently represents an alkyl group having 1 to 20 carbon atoms; R^2 and $R^{2'}$ each independently represents a hydrogen atom or a substituent for a benzene ring; R^3 represents an alkenyl group or an alkyl group having an unsaturated bond; and X and X' each independently represents a hydrogen atom or a substituent for a benzene ring.

12. The image forming method according to claim 11, wherein, in the reducing agent represented by formula (R1) or (R2), at least either one of R^1 and $R^{1'}$ is a secondary or tertiary alkyl group.

13. The image forming method according to claim 11, wherein the interval time is 10 seconds or less.

14. The image forming method according to claim 12, wherein the interval time is 10 seconds or less.

15. The image forming method according to claim 11, wherein the image has a hue angle ranging from 180 to 270° at an optical density of 1.0.

16. The image forming method according to claim 12, wherein the image has a hue angle ranging from 180 to 270° at an optical density of 1.0.

17. The image forming method according to claim 11, wherein the photothermographic material has a silver coating amount ranging from 1 to 1.9 g/m^2.

18. The image forming method according to claim 12, wherein the photothermographic material has a silver coating amount ranging from 1 to 1.9 g/m^2.

19. The image forming method according to claim 11, wherein a thermal developing time ranges from 6 to 12 seconds.

20. The image forming method according to claim 11, wherein a silver development rate at a highest density area is 70 % or higher.